

In re Application of CARON et al.
Application No. 09/504,531

Amendments to the Claims

1. – 10. (Canceled)

11. (Currently Amended) A machine-readable medium having instructions stored thereon for execution by a processor to perform a method comprising:
~~receiving a message in a queue, wherein the queue is associated with an ordered plurality of triggers, each trigger comprises at least one rule, each trigger grouping the at least one rule, each rule, at least, specifies a condition and specifies an action, and the action specified by each rule is capable of being different for each rule;~~

receiving a message in a queue that is associated with a plurality of triggers having a trigger ordering, each trigger comprising one or more rules and grouping the one or more rules such that any rule ordering of the one or more rules is independent of the trigger ordering, each rule specifying a condition and an action, where the action specified by each rule is variable from rule to rule;

for each trigger associated with the queue, in the order of the trigger ordering of the ordered plurality of triggers, checking whether the condition specified by each of the at least one or more rules of and grouped by the trigger is satisfied by the message; and,

upon determining that the condition specified by the rule is satisfied by the message, performing the action specified by the rule.

12. (Previously Presented) The medium of claim 11, wherein performing the action specified by the rule comprises activating each of at least one module referenced by the rule.

13. (Original) The medium of claim 12, wherein each module comprises one of: a software component; and, an executable program file.

14. (Previously Presented) The medium of claim 12, wherein activating each of at least one module referenced by the rule comprises passing the message to the module.

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15. (Previously Presented) The medium of claim 11, wherein each trigger further comprises an enabled state and a disabled state, such that the condition of each of the at least one rule of and grouped by the trigger is checked for satisfaction by the message received in the queue only when the trigger is in the enabled state.

16. (Previously Presented) The medium of claim 11, wherein the at least one rule comprises a short-circuit rule, such that satisfaction by the message received in the queue of the condition specified by the rule causes checking for satisfaction of the condition of any non-checked rules of the at least one rule grouped by the trigger associated with the queue to stop.

17. (Previously Presented) The medium of claim 11, wherein the at least one rule comprises a destructive rule, such that satisfaction by the message received in the queue of the condition specified by the rule removes the message from the queue.

18. (Original) The medium of claim 11, wherein checking is performed in a serial manner.

19. (Original) The medium of claim 11, wherein checking is performed in a concurrent manner.

20. (Previously Presented) A transactional message system comprising:
at least one queue, each queue capable of receiving a plurality of messages;
a trigger store of at least one trigger, each trigger associated with a queue, each trigger having a switchable enabled/disabled state switched to one of an enabled state and a disabled state, and each trigger grouping a plurality of rules in the trigger, each rule, at least, specifying a condition and specifying an action, and the action specified by each rule is capable of being different for each rule; and,
a trigger service configured to, at least, upon receipt of a message in a queue, for each trigger associated with the queue, if the switchable enabled/disabled state of the

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trigger is in the enabled state, check the condition specified by each rule grouped by the trigger for satisfaction by the message, such that the action specified by the rule is performed upon satisfaction by the message of the condition specified by the rule.

21. (Original) The system of claim 20, wherein the trigger store corresponds to a particular computer and references each of the at least one trigger within a trigger database.

22. (Original) The system of claim 20, wherein each of the at least one queue comprises data stored on a computer-readable medium.

23. (Original) The system of claim 20, wherein each of the at least one trigger store comprises data stored on a computer-readable medium.

24. (Original) The system of claim 20, wherein the trigger service comprises a computer program executed by a processor from a computer-readable medium.

25. (Previously Presented) The system of claim 20, further comprising a trigger manager configured to, at least, provide for creating, editing and deleting triggers and rules grouped in triggers in a visual, non-programming manner.

26. (Original) The system of claim 20, wherein the trigger store of the at least one trigger comprises a trigger store of a plurality of ordered triggers.

27. (Previously Presented) The system of claim 20, wherein the trigger service is further configured to, at least, perform the action specified by the rule by activating each of at least one module referenced by the rule.

28. (Previously Presented) The system of claim 27, further comprising at least one module, such that the at least one module referenced by the rule as activated by

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the trigger service are selected from the at least one module.

29. (Original) The system of claim 28, wherein each module comprises one of: a software component, and an executable program file.

30. (Previously Presented) The system of claim 28, wherein the trigger service is further configured to, at least, activate each of the at least one module referenced by the rule such that the message is passed to the module.

31. (Previously Presented) The system of claim 20, wherein the at least one rule comprises a short circuit rule, such that satisfaction by the message received in the queue of the condition specified by the rule causes the trigger service to stop checking for satisfaction of the condition specified by each of any non-checked rules of the at least one rule grouped by the trigger associated with the queue.

32. (Previously Presented) The system of claim 20, wherein the at least one rule comprises a destructive rule, such that satisfaction by the message received in the queue of the condition specified by the rule removes the message from the queue.

33. (Original) The system of claim 20, wherein checking is performed in a serial manner.

34. (Original) The system of claim 20, wherein checking is performed in a concurrent manner.

35. (Original) The system of claim 20, wherein the system comprises at least one computer.

36. (Previously Presented) A computer for inclusion into a transactional message system comprising:
at least one queue, each queue capable of receiving a plurality of messages;

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a trigger store of at least one trigger, each trigger associated with a queue and each trigger grouping at least one rule in the trigger, each rule, at least, specifying a condition and specifying an action, and the action specified by each rule is capable of being different for each rule;

a trigger manager configured to, at least, provide for creating, editing and deleting of triggers and rules grouped in triggers in a visual, non-programming manner; and,

means for, upon receipt of a message in a queue, for each trigger associated with the queue, checking the condition specified by each rule grouped by the trigger for satisfaction by the message, and performing the action specified by the rule upon satisfaction by the message of the condition specified by the rule .

37. (Original) The computer of claim 36, wherein the trigger store references each of the at least one trigger within a trigger database.

38. (Canceled)

39. (Original) The computer of claim 36, wherein the trigger store of the at least one trigger comprises a trigger store of a plurality of ordered triggers.

40. (Previously Presented) The computer of claim 36, wherein the means for checking and performing is further for performing the action specified by the at least one rule by activating each of at least one module referenced by the at least one rule.

41. (Previously Presented) The computer of claim 40, further comprising at least one module, such that the at least one module referenced by the at least one rule are selected from the at least one module.

42. (Original) The computer of claim 40, wherein each module comprises one of: a software component, and an executable program file.

43. (Previously Presented) The computer of claim 40, wherein the means

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for checking and performing is further for activating each of the at least one module referenced by the at least one rule such that the message is passed to the module.

44. (Previously Presented) The computer of claim 36, wherein the at least one rule comprises a short circuit rule, such that satisfaction by the message received in the queue of the condition specified by the rule causes the means for checking and performing to stop checking for satisfaction of the condition specified by each of any non-checked rules of the at least one rule grouped by the trigger associated with the queue.

45. (Previously Presented) The computer of claim 36, wherein the at least one rule comprises a destructive rule, such that satisfaction by the message received in the queue of the condition specified by the rule removes the message from the queue.

46. (Original) The computer of claim 36, wherein checking is performed in a serial manner.

47. (Original) The computer of claim 36, wherein checking is performed in a concurrent manner.

48. (Currently Amended) A computer-implemented method performable within a transactional message system comprising:

~~receiving, as part of a transaction, a message in a queue, wherein the queue is associated with at least one trigger, wherein each trigger comprises a set of rules, the trigger grouping the set of rules, the set of rules comprises an ordered set of checked rules having an order independent of non-checked rules, each rule, at least, specifies a condition and specifies an action, and the action specified by each rule is capable of being different for each rule; and~~

receiving a transactional message in a queue associated with a plurality of triggers having a trigger order, each trigger comprising a set of rules and grouping the set of rules such that any ordering of the set of rules is independent of the trigger order, the set of

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rules comprising a set of checked rules having a rule order independent of non-checked rules, and each rule specifying a condition and an action, where the action specified by each rule is variable from rule to rule; and

for each trigger associated with the queue, in the trigger order of the plurality of triggers, and for each checked rule of each the trigger associated with the queue, in the rule order of the ordered set of checked rules grouped by the trigger:

(a) checking if the message satisfies the condition specified by the checked rule; and

(b) if the message does satisfy the condition specified by the checked rule then performing the action specified by the checked rule.

49. (Previously Presented) The method of claim 48, wherein the action specified by the checked rule comprises at least one reference to a module, and wherein performing the action specified by the checked rule comprises activating each of the at least one module referenced by the action specified by the checked rule.

50. (Previously Presented) The method of claim 49, wherein each referenced module comprises one of: a software component; and, an executable program file.

51. (Previously Presented) The method of claim 49, wherein activating each of the at least one module referenced by the action of the checked rule comprises passing the message to each referenced module.

52. (Previously Presented) The method of claim 48, wherein each trigger further comprises a switchable enabled/disabled state, and the set of rules grouped by the trigger is checked for satisfaction only if the switchable enabled/disable state of the trigger is in an enabled state.

53. (Previously Presented) The method of claim 48, wherein at least one of the set of rules grouped by the at least one trigger comprises a short circuit rule, and

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the action specified by the short circuit rule comprises stopping the checking of each non-checked rule of the at least one of the set of rules grouped by the at least one trigger.

54. (Previously Presented) The method of claim 48, wherein at least one of the ordered set of checked rules grouped by the at least one trigger comprises a short circuit rule, and the action specified by the short circuit rule comprises stopping the checking of any rules in the at least one of the ordered set of checked rules subsequent in the order to the short circuit rule.

55. (Previously Presented) The method of claim 48, wherein the ordered set of checked rules grouped by the trigger comprises a destructive rule, and the action specified by the destructive rule comprises removing the message from the queue.

56. – 57. (Canceled)